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## **CLAIMS**

## What is claimed is:

<ol> <li>An application specific integrated circuit (ASIC) comprising:</li> </ol>
a standard cell, the standard cell including a plurality of logic functions;
at least one bus coupled to at least a portion of the logic functions;
a plurality of internal signals from the plurality of logic functions; and
a field programmable gate array (FPGA) function coupled to the at least one bus and
the plurality of internal signals, the FPGA function including a debug client function that
observes and manipulates the at least one bus and the plurality of internal signals.

- 2. The ASIC of claim 1 wherein the at least one bus comprises an internal bus.
- 3. The ASIC of claim 2 wherein the debug client function observes and manipulates at least one point of interest on the standard cell.
- 4. The ASIC of claim 1 wherein the debug client function is programmed by a server.
- The ASIC of claim 1 wherein the debug client function further includes:

   an external communicator logic function for receiving and transmitting

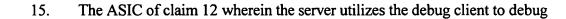
   information to a server;
- selector logic coupled to the at least one bus and the plurality of internal signals,

  and

6	an interface logic coupled between the external communicator logic and the
7	selector logic for providing communication therebetween.
1	6. The ASIC of claim 5 wherein the interface logic comprises:
2	a storage logic function for storing a state of signals of interest from the selector
3	logic and providing the state to a server;
4	a comparator logic function coupled to the storage logic function for comparing
5	the signals of interest from the selector block function; and
6	an output logic function coupled to the comparator logic function for
7	controlling the internal signals on the ASIC.
1	7. The ASIC of claim 4 wherein the server utilizes the debug client to debug
2	hardware within at least one of the plurality of logic functions.
1	8. The ASIC of claim 4 wherein the server utilizes the debug client to debug
2	software within at least one of the plurality of logic functions.
1	9. A debug client function within an application specific integrated circuit
2	(ASIC), the debug client function being within a field programmable gate array (FPGA)
3	function; the client debug function comprising::
4	an external communicator logic function for receiving and transmitting
5	information concerning a plurality of signals of the ASIC to a server;
6	selector logic coupled to the at least one bus of the ASIC and the plurality of

7	internal signals, and
8	an interface logic coupled between the external communicator logic and the
9	selector logic for providing communication therebetween.
1	10. The ASIC of claim 9 wherein the at least one bus comprises an internal bus.
1	11. The ASIC of claim 9 wherein the debug client function observes and
2	manipulates at least one point of interest on the standard cell.
1	12. The ASIC of claim 9 wherein the debug client function is programmed by a
2	server.
1	13. The ASIC of claim 9 wherein the interface logic comprises:
2	a storage logic function for storing a state of signals of interest from the selector
3	logic and providing the state to a server;
4	a comparator logic function coupled to the storage logic function for comparing
5	the signals of interest from the selector block function; and
6	an output logic function coupled to the comparator logic function for
7	controlling the internal signals on the ASIC.
1	14. The ASIC of claim 12 wherein the server utilizes the debug client to debug
2	hardware within at least one of the plurality of logic functions.

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2 software within at least one of the plurality of logic functions.